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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|---------|--------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| AM | AA1 | 4,811,217 | 03/1989 | Tokizane et al. | 364 | 300 | |
| AM | AB1 | 4,859,736 | 08/1989 | Rink | 525 | 54.1 | |
| AM | AC1 | 4,908,773 | 03/1990 | Pantoliano et al. | 364 | 496 | |
| AM | AD1 | 4,935,875 | 06/1990 | Shah et al. | 364 | 497 | |
| AM | AE1 | 4,939,666 | 07/1990 | Hardman | 364 | 496 | |
| AM | AF1 | 5,010,175 | 04/1991 | Rutter et al. | 530 | 334 | |
| AM | AG1 | 5,025,388 | 06/1991 | Cramer, III et al. | 364 | 496 | |
| AM | AH1 | 5,155,801 | 10/1992 | Lincoln | 395 | 22 | |
| AM | AI1 | 5,167,009 | 11/1992 | Skeirik | 395 | 27 | |
| AM | AJ1 | 5,240,680 | 08/1993 | Zuckerman et al. | 422 | 67 | |
| AM | AK1 | 5,260,882 | 11/1993 | Blanco et al. | 364 | 499 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|---------|----------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| AM | AL1 | 0 355 266 B1 | 06/1993 | EP, Hudson et al. | B01J | 19/00 | Yes No |
| AM | AM1 | 0 355 628 B1 | 11/1993 | EP, Shanon et al. | G21F | 9/00 | Yes No |
| AM | AN1 | 0 770 876 A1 | 05/1997 | EP, Pakula et al. | G01N | 33/68 | Yes No |
| AM | AO1 | 0 818 744 A2 | 01/1998 | EP, Young et al. | G06F | 17/50 | Yes No |
| AM | AP1 | WO 91/19735 | 12/1991 | PCT, Bartlett et al. | C07K | 7/02 | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|---|---|
| AM | AR | 1 | "3DP Gains drug research patent," Source of publication unclear, Vol. 32, No. 1, January 1996, 2 pages. |
| | AS | 1 | "Accelerate the Discovery Cycle with Chem-XI," Source and date of publication unclear, 2 pages. |
| AM | AT | 1 | Agrafiotis, D.k., "A New Method for Analyzing Protein Sequence Relationships Based on Sammon Maps," Protein Science, Vol. 6, No. 2, February 1997, pp. 287-293. |

| | |
|--|-----------------------------------|
| EXAMINER <i>Arden Manselhof</i> | DATE CONSIDERED <i>9/23/02</i> |
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| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|---------|--------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| AM | AA2 | 5,265,030 | 11/1993 | Skolnick et al. | 364 | 496 | |
| AM | AB2 | 5,270,170 | 12/1993 | Schatz et al. | 435 | 7.37 | |
| AM | AC2 | 5,288,514 | 02/1994 | Ellman | 427 | 2 | |
| AM | AD2 | 5,307,287 | 04/1994 | Cramer, III et al. | 364 | 496 | |
| AM | AE2 | 5,331,573 | 07/1994 | Balaji et al. | 364 | 500 | |
| AM | AF2 | 5,434,796 | 07/1995 | Weininger | 364 | 496 | |
| AM | AG2 | 5,436,850 | 07/1995 | Eisenberg et al. | 364 | 496 | |
| AM | AH2 | 5,442,122 | 08/1995 | Noda et al. | 564 | 426 | |
| AM | AI2 | 5,463,564 | 10/1995 | Agrafiotis et al. | 364 | 496 | |
| AM | AJ2 | 5,499,193 | 03/1996 | Sugawara et al. | 364 | 500 | |
| AM | AK2 | 5,519,635 | 05/1996 | Miyake et al. | 364 | 497 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|---------|---------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| AM | AL2 | WO 92/00091 | 01/1992 | PCT, Lam et al. | A61K | 37/02 | Yes No |
| AM | AM2 | WO 93/20242 | 10/1993 | PCT, Lerner et al. | C12Q | 1/70 | Yes No |
| AM | AN2 | WO 94/28504 | 12/1994 | PCT, Chapman et al. | G06F | 15/60 | Yes No |
| AM | AO2 | WO 95/01606 | 01/1995 | PCT, Weininger | G06F | 15/42 | Yes No |
| AM | AP2 | WO 97/09342 | 03/1997 | PCT, Arenas et al. | C07H | 21/02 | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|---|--|
| AM | AR | 2 | Agrafiotis, D.K., et al., "Stochastic Algorithms for Maximizing Molecular Diversity," <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 37, pp. 841-851, (1997). |
| AM | AS | 2 | Alsberg, B.K. et al., "Classification of pyrolysis mass spectra by fuzzy multivariate rule induction-comparison with regression, K-nearest neighbor, neural and decision-tree methods," <i>Analytica Chimica Acta</i> , Vol. 348, No. 1-3, pp. 389-407, (August 20, 1997). |
| AM | AT | 2 | Amzel, L.M., "Structure-based drug design," <i>Current Opinion in Biotechnology</i> , Vol. 9, No. 4, August 1998, pp. 366-369. |

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|----------|---------------------|-----------------|---------|
| EXAMINER | <i>Adam Mascher</i> | DATE CONSIDERED | 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|---------|-------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| AM | AA3 | 5,526,281 | 06/1996 | Chapman et al. | 364 | 496 | |
| AM | AB3 | 5,545,568 | 08/1996 | Ellman | 436 | 518 | |
| AM | AC3 | 5,549,974 | 08/1996 | Holmes | 428 | 403 | |
| AM | AD3 | 5,565,325 | 10/1996 | Blake | 435 | 7.1 | |
| AM | AE3 | 5,574,656 | 11/1996 | Agrafiotis et al. | 364 | 500 | |
| AM | AF3 | 5,585,277 | 12/1996 | Bowie et al. | 436 | 518 | |
| AM | AG3 | 5,602,755 | 02/1997 | Ashe et al. | 364 | 498 | |
| AM | AH3 | 5,612,895 | 03/1997 | Balaji et al. | 364 | 496 | |
| AM | AI3 | 5,634,017 | 05/1997 | Mohanty et al. | 395 | 326 | |
| AM | AJ3 | 5,635,598 | 06/1997 | Lebl et al. | 530 | 334 | |
| AM | AK3 | 5,670,326 | 09/1997 | Beutel | 435 | 7.1 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|---------|------------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| AM | AL3 | WO 97/20952 | 06/1997 | PCT, Pakula et al. | C12Q | 1/68 | Yes No |
| AM | AM3 | WO 97/27559 | 07/1997 | PCT, Patterson et al. | G06F | 19/00 | Yes No |
| AM | AN3 | WO 98/20437 | 05/1998 | PCT, Agrafiotis et al. | G06F | 17/50 | Yes No |
| AM | AO3 | WO 98/20459 | 05/1998 | PCT, Agrafiotis et al. | G06T | 11/20 | Yes No |
| | AP3 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|---|---|
| AM | AR | 3 | Andrea, T.A. et al., "Applications of Neural Networks in Quantitative Structure-Activity Relationships of Dihydrofolate Reductase Inhibitors," <i>Journal of Medicinal Chemistry</i> , Vol. 34, No. 9, pp. 2824-2836, (1991). |
| AM | AS | 3 | Aoyama, T. et al., "Neural Networks Applied to Quantitative Structure-Activity Relationship Analysis," <i>Journal of Medicinal Chemistry</i> , Vol. 33, No. 9, pp. 2583-2590, (1990). |
| AM | AT | 3 | Aoyama, T. et al., "Neural Networks Applied to Structure-Activity Relationships," <i>Journal of Medicinal Chemistry</i> , Vol. 33, No. 3, pp. 905-908, (1990). |

| | |
|--|--------------------------------|
| EXAMINER <i>Andi Masloj</i> | DATE CONSIDERED <i>9/23/02</i> |
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| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|---------|-------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| AM | AA4 | 5,679,582 | 10/1997 | Bowie et al. | 436 | 518 | |
| AM | AB4 | 5,684,711 | 11/1997 | Agrafiotis et al. | 364 | 500 | |
| AM | AC4 | 5,703,792 | 12/1997 | Chapman | 364 | 496 | |
| AM | AD4 | 5,712,171 | 01/1998 | Zambias et al. | 436 | 518 | |
| AM | AE4 | 5,712,564 | 01/1998 | Hayosh | 324 | 210 | |
| AM | AF4 | 5,736,412 | 04/1998 | Zambias et al. | 436 | 518 | |
| AM | AG4 | 5,789,160 | 08/1998 | Eaton et al. | 435 | 6 | |
| AM | AH4 | 5,807,754 | 09/1998 | Zambias et al. | 436 | 518 | |
| AM | AI4 | 5,811,241 | 09/1998 | Goodfellow et al. | 435 | 7.1 | |
| AM | AJ4 | 5,832,494 | 11/1998 | Egger et al. | 707 | 102 | |
| AM | AK4 | 5,858,660 | 01/1999 | Eaton et al. | 435 | 6 | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|------|---------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL4 | | | | | | Yes No |
| | AM4 | | | | | | Yes No |
| | AN4 | | | | | | Yes No |
| | AO4 | | | | | | Yes No |
| | AP4 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|---|---|
| AM | AR | 4 | Aoyama, T. and Hiroshi Ichikawa, "Obtaining the Correlation Indices between Drug Activity and Structural Parameters Using a Neural Network," <i>Chemical & Pharmaceutical Bulletin</i> , Vol. 39, No. 2, pp. 372-378, (1991). |
| AM | AS | 4 | "ArQule Inc," from http://www.bioportfolio.com/arqule/products.htm , 5 pages, (March 18, 1998). |
| AM | AT | 4 | Baum, R.M., "Combinatorial Approaches Provide Fresh Leads for Medicinal Chemistry," <i>Chemical & Engineering News</i> , February 7, 1994 (pp. 20-26). |

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|----------------------------------|----------------------------|
| EXAMINER <i>Andi Marshall</i> | DATE CONSIDERED 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|---------|-------------------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| AM | AA5 | 5,861,532 | 01/1999 | Brown et al. | 564 | 142 | |
| AM | AB5 | 5,866,334 | 02/1999 | Beutel | 435 | 6 | |
| AM | AC5 | 5,901,069 | 05/1999 | Agrafiotis et al. | 364 | 528.03 | |
| AM | AD5 | 5,908,960 | 06/1999 | Newlander | 564 | 177 | |
| AM | AE5 | 5,933,819 | 08/1999 | Skolnick et al. | 706 | 21 | |
| AM | AF5 | 6,037,135 | 03/2000 | Kubo et al. | 435 | 7.24 | |
| AM | AG5 | 6,049,797 | 04/2000 | Guha et al. | 707 | 6 | |
| | AH5 | | | | | | |
| | AI5 | | | | | | |
| | AJ5 | | | | | | |
| | AK5 | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|------|---------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL5 | | | | | | Yes No |
| | AM5 | | | | | | Yes No |
| | AN5 | | | | | | Yes No |
| | AO5 | | | | | | Yes No |
| | AP5 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----------|--|
| AM | AR | <u>5</u> | Bentley, J.L., "Multidimensional Binary Search Trees Used for Associative Searching," <i>Communications of the ACM</i> , Vol. 18, No. 9, pp. 509-517, (September 1975). |
| AM | AS | <u>5</u> | Blaney, J.M. and Martin, E.J., "Computational approaches for combinatorial library design and molecular diversity analysis," <i>Current Opinion in Chemical Biology</i> , Vol. 1, No. 1, June 1997, pp. 54-59. |
| AM | AT | <u>5</u> | Bottou, L. and Vladimir Vapnik, "Local Learning Algorithms," <i>Neural Computation</i> , Vol. 4, No. 6, pp. 888-900, (November 1992). |

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|--------------------------------|-----------------------------------|
| EXAMINER <i>Adi Mascher</i> | DATE CONSIDERED <i>9/23/02</i> |
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| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|-----|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA6 | | | | | | |
| | AB6 | | | | | | |
| | AC6 | | | | | | |
| | AD6 | | | | | | |
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| | AH6 | | | | | | |
| | AI6 | | | | | | |
| | AJ6 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|------|---------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL6 | | | | | | Yes No |
| | AM6 | | | | | | Yes No |
| | AN6 | | | | | | Yes No |
| | AO6 | | | | | | Yes No |
| | AP6 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----------|--|
| AM | AR | <u>6</u> | Boulu, L.G. and Gordon M. Crippen, "Voronoi Binding Site Models: Calculation of Binding Modes and Influence of Drug Binding Data Accuracy," <i>Journal of Computational Chemistry</i> , Vol. 10, No. 5, pp. 673-682, (1989). |
| AM | AS | <u>6</u> | Boulu, L.G. et al., "Voronoi Binding Site Model of a Polycyclic Aromatic Hydrocarbon Binding Protein," <i>Journal of Medicinal Chemistry</i> , Vol. 33, No. 2, pp. 771-775, (1990). |
| AM | AT | <u>6</u> | Brown, R.D. and Clark, D.E., "Genetic Diversity: Applications of evolutionary algorithms to combinatorial library design," <i>Expert Opinion on Therapeutic Patents</i> , Vol. 8, No. 11, November 1998, pp. 1447-1459. |

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|----------|----------------------|-----------------|----------------|
| EXAMINER | <i>Ardin Mansley</i> | DATE CONSIDERED | <i>9/23/02</i> |
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|-----------------------|-----|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA7 | | | | | | |
| | AB7 | | | | | | |
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| | AD7 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
|--------------------------|-----|-----------------|------|---------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL7 | | | | | | Yes No |
| | AM7 | | | | | | Yes No |
| | AN7 | | | | | | Yes No |
| | AO7 | | | | | | Yes No |
| | AP7 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|---|---|--|--|--|--|
| AM | AR | 7 | Brown, R.D. and Yvonne C. Martin, "Use of Structure-Activity Data To Compare Structure-Based Clustering Methods and Descriptors for Use in Compound Selection," <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 36, No. 3, pp. 572-584, (1996). | | | | |
| AM | AS | 7 | Cacoullos, T., "Estimation of a Multivariate Density", <i>Annals of The Institute of Statistical Mathematics</i> , Vol. 18, No. 2, pp. 179-189, (1966). | | | | |
| AM | AT | 7 | Cafilisch, A. and Karplus, M., "Computational combinatorial chemistry for de novo ligand design: Review and assessment," <i>Perspectives in Drug Discovery and Design</i> , Vol. 3, 1995, pp. 51-84. | | | | |

| | |
|--|-----------------------------------|
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| | AA8 | | | | | | |
| | AB8 | | | | | | |
| | AC8 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL8 | | | | | | Yes No |
| | AM8 | | | | | | Yes No |
| | AN8 | | | | | | Yes No |
| | AO8 | | | | | | Yes No |
| | AP8 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|---|--|--|--|--|--|
| AM | AR | 8 | Clark, D. E., and David R. Westhead, "Evolutionary algorithms in computer-aided molecular design", <i>Journal of Computer-Aided Molecular Design</i> , Vol. 10, No. 4, pp. 337-358, (August 1996). | | | | |
| AM | AS | 8 | Clark, R.D., "OptiSim: An Extended Dissimilarity Selection Method for Finding Diverse Representative Subsets", <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 37, No. 6, pp. 1181-1188 (12 Page Internet printout), 1997. | | | | |
| AM | AT | 8 | Cramer, R. D. III et al., "Comparative Molecular Field Analysis (CoMFA). 1. Effect of Shape on Binding of Steroids to Carrier Proteins", <i>Journal of The American Chemical Society</i> , Vol. 110, No. 18, pp. 5959-5967, (August 31, 1988). | | | | |

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|----------------------------------|-----------------------------------|
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA9 | | | | | | |
| | AB9 | | | | | | |
| | AC9 | | | | | | |
| | AD9 | | | | | | |
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| | AK9 | | | | | | |

| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL9 | | | | | | Yes No |
| | AM9 | | | | | | Yes No |
| | AN9 | | | | | | Yes No |
| | AO9 | | | | | | Yes No |
| | AP9 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|---|--|
| AM | AR | 2 | Cramer, R. D. III et al., "Substructural Analysis. A Novel Approach to the Problem of Drug Design", <i>Journal of Medicinal Chemistry</i> , Vol. 17, No. 5, pp. 533-535, (May 1974). |
| AM | AS | 2 | Crippen, G. M., "Voronoi binding Site Models", <i>Journal of Computational Chemistry</i> , Vol. 8, No. 7, pp. 943-955, (October/November 1987). |
| AM | AT | 2 | Danheiser, S.L., "Current Trends in Synthetic Peptide and Chemical Diversity Library Design," <i>Genetic Engineering News</i> , May 1, 1994, pp. 10 and 31. |

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| EXAMINER <i>Andr Mascher</i> | DATE CONSIDERED <i>9/23/02</i> |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA10 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL10 | | | | | | Yes No |
| | AM10 | | | | | | Yes No |
| | AN10 | | | | | | Yes No |
| | AO10 | | | | | | Yes No |
| | AP10 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 10 | Eichler, U. et al., "Addressing the problem of molecular diversity," <i>Drugs of the Future</i> , Vol. 24, No. 2, 1999, pp. 177-190. |
| AM | AS | 10 | Felder, E.R. and Poppinger, D., "Combinatorial Compound Libraries for Enhanced Drug Discovery Approaches," <i>Advances in Drug Research</i> , Vol. 30, 1997, pp. 112-199. |
| AM | AT | 10 | Friedman, J. H. et al., "An Algorithm for Finding Best Matches in Logarithmic Expected Time", <i>ACM Transactions on Mathematical Software</i> , Vol. 3, No. 3, pp. 209-226, (September 1977). |

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| EXAMINER | <i>Andin Mansel</i> | DATE CONSIDERED | 9/23/02 |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA11 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL11 | | | | | | Yes No |
| | AM11 | | | | | | Yes No |
| | AN11 | | | | | | Yes No |
| | AO11 | | | | | | Yes No |
| | AP11 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 11 | Friedman, J.H., "Fitting Functions To Noisy Data In High Dimensions", Department of Statistics- Stanford University Technical Report No. 101, (August, 1988). |
| AM | AS | 11 | Gallop, M. A. et al., "Applications of Combinatorial Technologies to Drug Discovery. 1. Background and Peptide Combinatorial Libraries", <i>Journal of Medicinal Chemistry</i> , Vol. 37, No. 9, pp. 1233-1251, (April 29, 1994). |
| AM | AT | 11 | Geysen, H.M. and Mason, T.J., "Screening Chemically Synthesized Peptide Libraries for Biologically-Relevant Molecules," <i>Biorganic & Medicinal Chemistry Letters</i> , Vol. 3, No. 3, 1993, pp. 397-404. |

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| EXAMINER <i>John Maskey</i> | DATE CONSIDERED <i>9/23/02</i> |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA12 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL12 | | | | | | Yes No |
| | AM12 | | | | | | Yes No |
| | AN12 | | | | | | Yes No |
| | AO12 | | | | | | Yes No |
| | AP12 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 12 | Ghose, A. K. and Gordon M. Crippen, "Use of Physicochemical Parameters in Distance Geometry and Related Three-Dimensional Quantitative Structure-Activity Relationships: A Demonstration Using <i>Escherichia coli</i> Dihydrofolate Reductase Inhibitors", <i>Journal of Medicinal Chemistry</i> , Vol. 28, No. 3, pp. 333-346, (1985). |
| AM | AS | 12 | Gobbi, A. et al., "New Leads By Selective Screening of Compounds From Large Databases," <i>Abstracts for CINF sponsored symposia</i> , April 17, 1997, p. 22. |
| AM | AT | 12 | Good, A. C. et al., "Structure-Activity Relationships from Molecular Similarity Matrices", <i>Journal of Medicinal Chemistry</i> , Vol. 36, No. 4, pp. 433-438, (February 19, 1993). |

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| EXAMINER <i>Andin Masley</i> | DATE CONSIDERED <i>9/23/02</i> |
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| | FILING DATE February 18, 2000 | GROUP 1631 |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA13 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL13 | | | | | | Yes No |
| | AM13 | | | | | | Yes No |
| | AN13 | | | | | | Yes No |
| | AO13 | | | | | | Yes No |
| | AP13 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 13 | Gordon, E. M., "Applications of Combinatorial Technologies to Drug Discovery. 2. Combinatorial Organic Synthesis, Library Screening Strategies, and Future Directions", <i>Journal of Medicinal Chemistry</i> , Vol. 37, No. 10, (May 13, 1994). |
| AM | AS | 13 | Grayhill, T.L. et al., "Enhancing the Drug Discovery Process by Integration of High-Throughput Chemistry and Structure-Based Drug Design," from <u>Molecular Diversity and Combinatorial Chemistry: Libraries and Drug Discovery</u> , Chaiken and Janda (eds.), American Chemical Society, 1996, pp. 16-27. |
| AM | AT | 13 | Hartigan, J. A., "Representation of Similarity Matrices By Trees", <i>Journal of the American Statistical Association</i> , Vol. 62, No. 320, pp. 1140-1158, (December, 1967). |

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|---------------------------------|-----------------------------------|
| EXAMINER <i>Andi Mascher</i> | DATE CONSIDERED <i>9/23/02</i> |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA14 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL14 | | | | | | Yes No |
| | AM14 | | | | | | Yes No |
| | AN14 | | | | | | Yes No |
| | AO14 | | | | | | Yes No |
| | AP14 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 14 | Hopfinger, A. J., "A QSAR Investigation of Dihydrofolate Reductase Inhibition by Baker Triazines based upon Molecular Shape Analysis", <i>Journal of the American Chemical Society</i> , Vol. 102, No. 24, pp. 7196-7206, (November 19, 1980). |
| AM | AS | 14 | Houghten, R.A. et al., "The Use of Synthetic Peptide Combinatorial Libraries for the Identification of Bioactive Peptides," <i>Peptide Research</i> , Vol. 5, No. 6, 1992, pp. 351-358. |
| AM | AT | 14 | Jackson, R. C., "Update on computer-aided drug design", <i>Current Opinion in BIOTECHNOLOGY</i> , Vol. 6, No. 6, pp. 646-651, (December, 1995). |

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| EXAMINER <i>Andi Munsch</i> | DATE CONSIDERED 9/23/02 |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA15 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL15 | | | | | | Yes No |
| | AM15 | | | | | | Yes No |
| | AN15 | | | | | | Yes No |
| | AO15 | | | | | | Yes No |
| | AP15 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 15 | Kim, K. H., "Comparative molecular field analysis (CoFMA)", <u>Molecular Similarity in Drug Design</u> , ed. P. M. Dean, Blackie Academic & Professional, 1995, Ch. 12 (pp. 291-324). |
| AM | AS | 15 | Klopman, G., "Artificial Intelligence Approach to Structure-Activity Studies. Computer Automated Structure Evaluation of Biological Activity of Organic Molecules," <u>J. Am. Chem. Soc.</u> , Vol. 106, No. 24, November 28, 1984, pp. 7315-7321. |
| AM | AT | 15 | Kohonen, T., "Self-Organized Formation of Topologically Correct Feature Maps", <u>Biological Cybernetics</u> , Vol. 43, pp. 59-69, (1982). |

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| EXAMINER | <i>Andi Mascher</i> | DATE CONSIDERED | 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA16 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL16 | | | | | | Yes No |
| | AM16 | | | | | | Yes No |
| | AN16 | | | | | | Yes No |
| | AO16 | | | | | | Yes No |
| | AP16 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 16 | Koile, K. and Richard Shapiro, "Building A Collaborative Drug Design System", <i>Proceedings of the 25h Hawaii International Conference on System Sciences</i> , pp. 706-716, (1992). |
| AM | AS | 16 | Kowalski, B. R. and C. F. Bender, "Pattern Recognition. II. Linear and Nonlinear Methods for Displaying Chemical Data", <i>Journal of the American Chemical Society</i> , pp. 686-693, (February 7, 1973). |
| AM | AT | 16 | Kruskal, J. B., "Nonmetric Multidimensional Scaling: A Numerical Method", <i>Psychometrika</i> , Vol. 29, No. 2, pp. 115-129, (June, 1964). |

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| EXAMINER | Andi Masloj | DATE CONSIDERED | 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA17 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL17 | | | | | | Yes No |
| | AM17 | | | | | | Yes No |
| | AN17 | | | | | | Yes No |
| | AO17 | | | | | | Yes No |
| | AP17 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 17 | Lajiness, M.S. et al., "Implementing Drug Screening Programs Using Molecular Similarity Methods," <u>QSAR: Quantitative Structure-Activity Relationships in Drug Design</u> , 1989, pp. 173-176. |
| AM | AS | 17 | Lengauer, T. and Matthias Rarey, "Computational methods for biomolecular docking", <i>Current Opinion in Structural Biology</i> , Vol. 6, No. 3, pp. 402-406, (June, 1996). |
| AM | AT | 17 | Loew, G.H. et al., "Strategies for Indirect Computer-Aided Drug Design," <i>Pharmaceutical Research</i> , Vol. 10, No. 4, 1993, pp. 475-486. |

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| EXAMINER | Adin Maschof | DATE CONSIDERED | 9/23/02 |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA18 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL18 | | | | | | Yes No |
| | AM18 | | | | | | Yes No |
| | AN18 | | | | | | Yes No |
| | AO18 | | | | | | Yes No |
| | AP18 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
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| AM | AR | 18 | Luke, B. T., "Evolutionary Programming Applied to the Development of Quantitative Structure-Activity Relationships and Quantitative Structure-Property Relationships", <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 34, pp. 1279-1287, (November/December, 1994). |
| AM | AS | 18 | Lynch, M.F. et al., "Generic Structure Storage and Retrieval," <i>J. Chem. Inf. Comput. Sci.</i> , Vol. 25, No. 3, August 1985, pp. 264-270. |
| AM | AT | 18 | Martin, E. J. et al., "Does Combinatorial Chemistry Obviate Computer-Aided Drug Design?", <i>Reviews in Computational Chemistry</i> , Vol. 10, pp. 75-99, (1997). |

EXAMINER

Andi Manasloj

DATE CONSIDERED

9/23/02

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA19 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL19 | | | | | | Yes No |
| | AM19 | | | | | | Yes No |
| | AN19 | | | | | | Yes No |
| | AO19 | | | | | | Yes No |
| | AP19 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
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| AM | AR | 19 | Martin, E. J. et al., "Measuring Diversity: Experimental Design of Combinatorial Libraries for Drug Discovery", <i>Journal of Medicinal Chemistry</i> , Vol. 38, No. 9, pp. 1431-1436, (April 28, 1995). |
| AM | AS | 19 | McMartin, C. and Regine S. Bohacek, "QXP: Powerful, rapid computer algorithms for structure-based drug design", <i>Journal of Computer-Aided Molecular Design</i> , Vol. 11, pp. 333-344, (1997). |
| AM | AT | 19 | Mezey, P. G. and P. Duane Walker, "Fuzzy molecular fragments in drug research", <i>Drug Discovery Today</i> , Vol. 2, No. 4, (April, 1997). |

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| EXAMINER <i>Andi Manal</i> | DATE CONSIDERED 9/23/02 |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
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| | AA20 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL20 | | | | | | Yes No |
| | AM20 | | | | | | Yes No |
| | AN20 | | | | | | Yes No |
| | AO20 | | | | | | Yes No |
| | AP20 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| AM | AR | 20 | Müller, K., "On the paradigm shift from rational to random design", <i>Journal of Molecular Structure (Theochem)</i> 398-399, Special Issue, pp. 467-471, (1997). |
| | AS | 20 | Myers, P., "The Design Of A Universal, Informer™ Library", COMBICHEM, INC., 10 Pages, Date unknown. |
| AM | AT | 20 | Myers, P.L. et al., "Rapid, Reliable Drug Discovery," <i>Today's Chemist At Work</i> , July/August 1997, pp. 46-48, 51 & 53. |

EXAMINER

Andi Mascher

DATE CONSIDERED

9/23/02

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA21 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL21 | | | | | | Yes No |
| | AM21 | | | | | | Yes No |
| | AN21 | | | | | | Yes No |
| | AO21 | | | | | | Yes No |
| | AP21 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|---|--|--|--|--|
| | AR | 21 | Omohundro, S. M., "Dumptrees for Efficient Function, Constraint, and Classification Learning", International Computer Science Institute, pp. 693-699, Source and Date unknown. | | | | |
| AM | AS | 21 | Pabo et al., "Computer-Aided Model Building Strategies for Protein Design," Biochemistry, Vol. 25, No. 20, 1986, pp. 5987-5991. | | | | |
| AM | AT | 21 | Parrill, A. L., "Evolutionary and genetic methods in drug design", Drug Discovery Today, Vol. 1, No. 12, pp. 514-521, (December, 1996). | | | | |

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| EXAMINER <i>Andin Manschur</i> | DATE CONSIDERED <i>9/23/02</i> |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA22 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL22 | | | | | | Yes No |
| | AM22 | | | | | | Yes No |
| | AN22 | | | | | | Yes No |
| | AO22 | | | | | | Yes No |
| | AP22 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 22 | Polanski, J., "A neural network for the simulation of biological systems", <i>Journal of Molecular Structure (Theochem)</i> 398-399, Special Issue, pp. 565-571, (1997). |
| AM | AS | 22 | Ramos-Nino, M. E. et al., "A comparison of quantitative structure-activity relationships for the effect of benzoic and cinnamic acids on <i>Listeria monocytogenes</i> using multiple linear regression, artificial neural network and fuzzy systems", <i>Journal of Applied Microbiology</i> , Vol. 82, No. 2, pp. 168-175, (February, 1997). |
| AM | AT | 22 | Rogers, D. and A. J. Hopfinger, "Application of Genetic Function Approximation to Quantitative Structure-Activity Relationships and Quantitative Structure-Property Relationships", <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 34, No. 4, pp. 854-866, (July/August, 1994). |

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| EXAMINER <i>Andru Masoley</i> | DATE CONSIDERED <i>9/23/02</i> |
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| | AA23 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL23 | | | | | | Yes No |
| | AM23 | | | | | | Yes No |
| | AN23 | | | | | | Yes No |
| | AO23 | | | | | | Yes No |
| | AP23 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 23 | Sammon, J. W., Jr., "A Nonlinear Mapping for Data Structure Analysis", <i>IEEE Transactions on Computers</i> , Vol. C-18, No. 5, pp. 401-409, (May, 1969). |
| AM | AS | 23 | Saudek et al., "Solution Conformation of Endothelin-1 by H NMR, CD, and Molecular Modeling," <i>International Journal of Peptide Protein Res.</i> , Vol. 37, No. 3, 1991, pp. 174-179. |
| AM | AT | 23 | Saund, E., "Dimensionality-Reduction Using Connectionist Networks," <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , Vol. 11, No. 3, March 1989, pp. 304-314. |

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|--|--------------------|-----------------|---------|
| EXAMINER | <i>Adi Maschay</i> | DATE CONSIDERED | 9/23/02 |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | |

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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA24 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL24 | | | | | | Yes No |
| | AM24 | | | | | | Yes No |
| | AN24 | | | | | | Yes No |
| | AO24 | | | | | | Yes No |
| | AP24 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 24 | Simon, Z. et al., "Mapping of Dihydrofolate-reductase Receptor Site by Correlation with Minimal Topological (Steric) Differences", <i>Journal of Theoretical Biology</i> , Vol. 66, No. 3, pp. 485-495, (June 7, 1997). |
| AM | AS | 24 | Singh, J. et al., "Application of Genetic Algorithms to Combinatorial Synthesis: A Computational Approach to Lead Identification and Lead Optimization," <i>J. Am. Chem. Soc.</i> , Vol. 118, No. 7, February 21, 1996, pp. 1669-1676. |
| AM | AT | 24 | Smellie, A. S. et al., "Fast Drug-Receptor Mapping by Site-Directed Distances: A Novel Method of Predicting New Pharmacological Leads", <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 31, No.3, pp. 386-392, (August, 1991). |

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| EXAMINER <i>Andi Masloj</i> | DATE CONSIDERED 9/23/02 |
|--------------------------------|----------------------------|

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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA25 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL25 | | | | | | Yes No |
| | AM25 | | | | | | Yes No |
| | AN25 | | | | | | Yes No |
| | AO25 | | | | | | Yes No |
| | AP25 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|--|--|--|--|--|
| AM | AR | 25 | Specht, D. F., "A General Regression Neural Network", <i>IEEE Transactions on Neural Networks</i> , Vol. 2, No. 6, pp. 568-576, (November, 1991). | | | | |
| AM | AS | 25 | Svozil, D. et al., "Neural Network Prediction of the Solvatochromic Polarity/Polarizability Parameter n^H ", <i>Journal of Chemical Information and Computer Sciences</i> , Vol. 37, No. 2, (1997). | | | | |
| AM | AT | 25 | Todorov, N. P. and P. M. Dean, "Evaluation of a method for controlling molecular scaffold diversity in de novo ligand design", <i>Journal of Computer-Aided Molecular Design</i> , Vol. 11, pp. 175-192, (1997). | | | | |

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| EXAMINER <i>Adam Marsden</i> | DATE CONSIDERED <i>9/23/02</i> |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | |

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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA26 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL26 | | | | | | Yes No |
| | AM26 | | | | | | Yes No |
| | AN26 | | | | | | Yes No |
| | AO26 | | | | | | Yes No |
| | AP26 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 26 | Torgerson, W. S., "Multidimensional Scaling: I. Theory and Method", <i>Psychometrika</i> , Vol. 17, No. 4, pp. 401-419, (December, 1952). |
| AM | AS | 26 | Van Drie, J.H. and Lajiness, M.S., "Approaches to virtual library design," <i>Drug Discovery today</i> , Vol. 3, No. 6, June 1998, pp. 274-283. |
| AM | AT | 26 | Vapnik, V. and L. Bottou, "Local Algorithms for Pattern Recognition and Dependencies Estimation", <i>Neural Computation</i> , Vol. 5, No. 6, pp. 893-909, (November, 1993). |

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| EXAMINER <i>Arden Monader</i> | DATE CONSIDERED <i>9/23/02</i> |
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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA27 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL27 | | | | | | Yes No |
| | AM27 | | | | | | Yes No |
| | AN27 | | | | | | Yes No |
| | AO27 | | | | | | Yes No |
| | AP27 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| | AR | 27 | Vapnik, V., "Principles of Risk Minimization for Learning Theory", Advances in Neural Information Processing Systems 4, pp. 831-836, Date unknown. |
| AM | AS | 27 | Viswanadhan, V. N. et al., "Mapping the binding site of the nucleoside transporter protein: a 3D-QSAR study", <i>Biochimica et Biophysica Acta</i> , Vol. 1039, No. 3, pp. 356-366, (1990). |
| AM | AT | 27 | Walters, W.P., "Virtual screening - an overview," <i>Drug Discovery today</i> , Vol. 3, No. 4, April 1998, pp. 160-178. |

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| EXAMINER | <i>Andri Manohar</i> | DATE CONSIDERED | 9/23/02 |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | |

FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
 1503.0730000

APPLICATION NO.
 09/506,741

APPLICANT
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 February 18, 2000

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 1631

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA28 | | | | | | |
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FOREIGN PATENT DOCUMENTS

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| | AL28 | | | | | | Yes No |
| | AM28 | | | | | | Yes No |
| | AN28 | | | | | | Yes No |
| | AO28 | | | | | | Yes No |
| | AP28 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| AM | AR | 28 | Warr, W. A., "Exploiting Molecular Diversity: Small Molecule Libraries for Drug Discovery", Report of Conference held in La Jolla, California, Jan. 23-25, 1995. |
| AM | AS | 28 | Weber, L., "Evolutionary combinatorial chemistry: application of genetic algorithms," <i>Drug Discovery today</i> , Vol. 3, No. 8, August 1998, pp. 379-385. |
| AM | AT | 28 | Weber, L. et al., "Optimization of the Biological Activity of Combinatorial Compound Libraries by a Genetic Algorithm," <i>Angewandte Chemie International Edition in English</i> , Vol. 34, No. 20, 1995, pp. 2280-2282. |

EXAMINER

Arden Marsden

DATE CONSIDERED 9/23/02

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA29 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL29 | | | | | | Yes No |
| | AM29 | | | | | | Yes No |
| | AN29 | | | | | | Yes No |
| | AO29 | | | | | | Yes No |
| | AP29 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
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| AM | AR | 29 | Westhead, D. R. et al., "A comparison of heuristic search algorithms for molecular docking", <i>Journal of Computer-Aided Molecular Design</i> , Vol. 11, pp. 209-228, (1997). |
| AM | AS | 29 | Willett, P., "Genetic algorithms in molecular recognition and design", <i>Trends in Biotechnology</i> , Vol. 13, No. 12, pp. 516-521, (December, 1995). |
| AM | AT | 29 | Willett, P. and Vivienne Winterman, "A Comparison of Some Measures for the Determination of Inter-Molecular Structural Similarity Measures of Inter-Molecular Structural Similarity", <i>Quantitative Structure-Activity Relationships</i> , Vol. 5, No. 1, pp. 18-25, (March, 1986). |

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| EXAMINER <i>Andrius Masulis</i> | DATE CONSIDERED 9/23/02 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA30 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL30 | | | | | | Yes No |
| | AM30 | | | | | | Yes No |
| | AN30 | | | | | | Yes No |
| | AO30 | | | | | | Yes No |
| | AP30 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 30 | Zadeh, L. A., "Communication Fuzzy Algorithms", <i>Information and Control</i> , Vol. 12, No. 2, pp. 94-102, (February, 1968). |
| AM | AS | 30 | Zadeh, L. A., "Fuzzy Sets", <i>Information and Control</i> , Vol. 8, No. 3, pp. 338-353, (June, 1965). |
| AM | AT | 30 | Borg, Inger and Groenen, Patrick, <i>Modern Multidimensional Scaling Theory and Applications</i> , Springer Series in Statistics, 1997, entire book submitted. |

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| EXAMINER <i>Andin Massey</i> | DATE CONSIDERED 9/23/02 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA31 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL31 | | | | | | Yes No |
| | AM31 | | | | | | Yes No |
| | AN31 | | | | | | Yes No |
| | AO31 | | | | | | Yes No |
| | AP31 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| AM | AR | 31 | Agrafiotis, D.K. et al., "Advances in diversity profiling and combinatorial series design," <i>Molecular Diversity</i> , Vol. 4, 1999, pp. 1-22. |
| AM | AS | 31 | Agrafiotis, D.K. and Lobanov, V.S., "An Efficient Implementation of Distance-Based Diveristy Measure based on k-d Trees," <i>J. Chem. Inf. Comput. Sci.</i> , Vol. 39, No. 1, January/February 1999, pp. 51-58. |
| AM | AT | 31 | Agrafiotis, D.K. and Lobanov, V.S., "Bridging The Gap Between Diversity And QSAR," <i>Abstracts of Papers Part 1: 215th ACS National Meeting</i> , March 29-April 2, 1998, p. 181-COMP. |

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| EXAMINER | Andin Marschel | DATE CONSIDERED | 9-23-02 |
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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|------|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA32 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL32 | | | | | | Yes No |
| | AM32 | | | | | | Yes No |
| | AN32 | | | | | | Yes No |
| | AO32 | | | | | | Yes No |
| | AP32 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 32 | Agrafiotis, D.K. and Jaeger, E.P., "Directed Diversity®: An Operating System For Combinatorial Chemistry," Abstracts of Papers Part 1: 211th ACS National Meeting, March 24-28, 1996, p. 46-COMP. |
| AM | AS | 32 | Agrafiotis, D.K., "Diversity of Chemical Libraries," Encyclopedia of Computational Chemistry, Vol. 1:A-D, 1998, pp. 742-761. |
| AM | AT | 32 | Agrafiotis, D.K., "On the Use of Information Theory for Assessing Molecular Diversity," J. Chem. Inf. Comput. Sci., Vol. 37, No. 3, May/June 1997, pp. 576-580. |

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| EXAMINER | <i>Adam Mansel</i> | DATE CONSIDERED | 9/23/02 |
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| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL33 | | | | | | Yes No |
| | AM33 | | | | | | Yes No |
| | AN33 | | | | | | Yes No |
| | AO33 | | | | | | Yes No |
| | AP33 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|--|--|--|--|--|
| AM | AR | 33 | Agrafiotis, D.K. et al., "Parallel QSAR," <i>Abstracts of Papers Part 1: 217th ACS National Meeting</i> , March 21-25, 1999, p. 50-COMP. | | | | |
| AM | AS | 33 | Agrafiotis, D.K. et al., "PRODEN: A New Program for Calculating Integrated Projected Populations," <i>Journal of Computational Chemistry</i> , Vol. 11, No. 9, October 1990, pp. 1101-1110. | | | | |
| AM | AT | 33 | Agrafiotis, D.K. and Jaeger, E.P., "Stochastic Algorithms for Exploring Molecular Diversity," <i>Abstracts of Papers Part 1: 213th ACS National Meeting</i> , April 13-17, 1997, p. 16-CINF. | | | | |

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| EXAMINER | <i>Andin Marsden</i> | DATE CONSIDERED | 9/23/02 |
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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA34 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL34 | | | | | | Yes No |
| | AM34 | | | | | | Yes No |
| | AN34 | | | | | | Yes No |
| | AO34 | | | | | | Yes No |
| | AP34 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 34 | Agrafiotis, D., "Theoretical Aspects of the Complex: Arts and New Technologies," Applications and Impacts Information Processing '94, Vol. II, 1994, pp. 714-719. |
| AM | AS | 34 | Biswas, G. et al., "Evaluation of Projection Algorithms," IEEE Transactions On Pattern Analysis And Machine Intelligence, Vol. PAMI-3, No. 6, November 1981, pp. 701-708. |
| AM | AT | 34 | Bonchev, D. and Trinajsti, N., "Information theory, distance matrix, and molecular branching," The Journal of Chemical Physics, Vol. 67, No. 10, November 15, 1977, pp. 4517-4533. |

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| EXAMINER | Adam Marschel | DATE CONSIDERED | 9/23/02 |
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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
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| | AA35 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL35 | | | | | | Yes No |
| | AM35 | | | | | | Yes No |
| | AN35 | | | | | | Yes No |
| | AO35 | | | | | | Yes No |
| | AP35 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 35 | Chang, C.L. and Lee, R.C.T., "A Heuristic Relaxation Method for Nonlinear Mapping in Cluster Analysis," <i>IEEE Transactions on Systems, Man, and Cybernetics</i> , Vol. SMC-3, March 1973, pp. 197-200. |
| AM | AS | 35 | Cramer, R.D. et al., "Virtual Compound Libraries: A New Approach to Decision Making in Molecular Discovery Research," <i>J. Chem. Inf. Comput. Sci.</i> , Vol. 38, No. 6, November/December 1998, pp. 1010-1023. |
| AM | AT | 35 | DeMers, D. and Cottrell, G., "Non-Linear Dimensionality Reduction," <i>Advances in Neural Information Processing Systems</i> , Vol. 5, 1993, pp. 580-587. |

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| EXAMINER <i>Andi Mansoor</i> | DATE CONSIDERED 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA36 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL36 | | | | | | Yes No |
| | AM36 | | | | | | Yes No |
| | AN36 | | | | | | Yes No |
| | AO36 | | | | | | Yes No |
| | AP36 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|--|--|--|--|--|
| AM | AR | 36 | Frey, P.W. and Slate, D.J., "Letter Recognition Using Holland-Style Adaptive Classifiers," <i>Machine Learning</i> , Vol. 6, 1991, pp. 161-182. | | | | |
| AM | AS | 36 | Friedman, J.H., "Exploratory Projection Pursuit," <i>Journal of the American Statistical Association</i> , Vol. 82, No. 397, March 1987, pp. 249-266. | | | | |
| AM | AT | 36 | Friedman, J.H. and Tukey, J.W., "A Projection Pursuit Algorithm for Exploratory Data Analysis," <i>IEEE Transactions on Computers</i> , Vol. C-23, No. 9, September 1974, pp. 881-889. | | | | |

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| EXAMINER <i>Adin Manshel</i> | DATE CONSIDERED 9/23/02 |
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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|------------------|------|-----------------|------|------|-------|-----------|-------------|
| | AA37 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AL37 | | | | | | Yes No |
| | AM37 | | | | | | Yes No |
| | AN37 | | | | | | Yes No |
| | AO37 | | | | | | Yes No |
| | AP37 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| AM | AR | 37 | Garrido, L. et al., "Use of Multilayer Feedforward Neural Nets As A Display Method for Multidimensional Distributions," <i>International Journal of Neural Systems</i> , Vol. 6, No. 3, September 1995, pp. 273-282. |
| AM | AS | 37 | Ghose, A.K. et al., "Prediction of Hydrophobic (Lipophilic) Properties of Small Organic Molecules Using Fragmental Methods: An Analysis of ALOGP and CLOGP Methods," <i>J. Phys. Chem. A</i> , Vol. 102, No. 21, May 21, 1998, pp. 3762-3772. |
| AM | AT | 37 | Hall, L.H. and Kier, L.B., "The Molecular Connectivity Chi Indexes and Kappa Shape Indexes in Structure-Property Modeling," <i>Reviews in Computational Chemistry: Advances</i> , 1991, pp. 367-422. |

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| EXAMINER <i>Andin Marschel</i> | DATE CONSIDERED 9/23/02 |
|-----------------------------------|----------------------------|

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FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
 1503.0730000

APPLICATION NO.
 09/506,741

APPLICANT
 Lobanov et al.

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 February 18, 2000

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 1631

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA38 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL38 | | | | | | Yes No |
| | AM38 | | | | | | Yes No |
| | AN38 | | | | | | Yes No |
| | AO38 | | | | | | Yes No |
| | AP38 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 38 | Hecht-Nielsen, R., "Replicator Neural Networks for Universal Optimal Source Coding," <i>Science</i> , Vol. 269, September 29, 1995, pp. 1860-1863. |
| AM | AS | 38 | Hotelling, H., "Analysis of a Complex of Statistical Variables into Principal Components," <i>The Journal of Educational Psychology</i> , Vol. XXIV, No. 6, September 1933, pp. 417-441. |
| AM | AT | 38 | Hotelling, H., "Analysis of a Complex of Statistical Variables into Principal Components," <i>The Journal of Educational Psychology</i> , Vol. XXIV, No. 7, October 1933, pp. 498-520. |

EXAMINER

Andin Mavrod

DATE CONSIDERED 9/23/02

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA39 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL39 | | | | | | Yes No |
| | AM39 | | | | | | Yes No |
| | AN39 | | | | | | Yes No |
| | AO39 | | | | | | Yes No |
| | AP39 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 39 | Lee, R.C.T. et al., "A Triangulation Method for the Sequential Mapping of Points from N-Space to Two-Space," <i>IEEE Transactions on Computers</i> , March 1977, pp. 288-292. |
| AM | AS | 39 | Lipinski, C.A. et al., "Experimental and computational approaches to estimate solubility and permeability in drug discovery and development settings," <i>Advanced Drug Delivery Reviews</i> , Vol. 23, 1997, pp. 3-25. |
| AM | AT | 39 | Lobanov, V.S. and Agrafiotis, D.K., "Intelligent Database Mining Techniques," <i>Abstracts of Papers Part 1: 215th ACS National Meeting</i> , March 29-April 2, 1998, p. 19-COMP. |

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| EXAMINER | <i>Adam Mawdsley</i> | DATE CONSIDERED | 9/23/02 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA40 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL40 | | | | | | Yes No |
| | AM40 | | | | | | Yes No |
| | AN40 | | | | | | Yes No |
| | AO40 | | | | | | Yes No |
| | AP40 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|---|--|--|--|--|
| AM | AR | 40 | Lobanov, V.S. et al., "Rational Selections from Virtual Libraries," Abstracts of Papers Part 1: 217th ACS National Meeting, March 21-25, 1999, p. 181-COMP. | | | | |
| AM | AS | 40 | Mao, J. and Jain, A.K., "Artificial Neural Networks for Feature Extraction and Multivariate Data Projection," IEEE transactions on Neural Networks, Vol. 6, No. 2, March 1995, pp. 296-317. | | | | |
| AM | AT | 40 | Oja, E., "Principal Components, Minor Components, and Linear Neural Networks," Neural Networks, Vol. 5, 1992, pp. 927-935. | | | | |

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| EXAMINER | Ardin Marschall | DATE CONSIDERED | 9/23/02 |
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| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA41 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL41 | | | | | | Yes No |
| | AM41 | | | | | | Yes No |
| | AN41 | | | | | | Yes No |
| | AO41 | | | | | | Yes No |
| | AP41 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| JM | AR | 41 | Patterson, D.E. et al., "Neighborhood Behavior: A Useful Concept for Validation of 'Molecular Diversity' Descriptors," <i>Journal of Medicinal Chemistry</i> , Vol. 39, No. 16, 1996, pp. 3049-3059. |
| AM | AS | 41 | Pykett, C.E., "Improving the Efficiency of Sammon's Nonlinear Mapping by Using Clustering Archetypes," <i>Electronics Letters</i> , Vol. 14, No. 25, December 7, 1978, pp. 799-800. |
| AM | AT | 41 | Rubner, J. and Tavan, P., "A Self-Organizing Network for Principal-Component Analysis," <i>Europhysics Letters</i> , Vol. 10, No. 7, December 1, 1989, pp. 693-698. |

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|----------|---------------|-----------------|---------|
| EXAMINER | Andin Marsden | DATE CONSIDERED | 9/23/02 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA42 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL42 | | | | | | Yes No |
| | AM42 | | | | | | Yes No |
| | AN42 | | | | | | Yes No |
| | AO42 | | | | | | Yes No |
| | AP42 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|---|--|--|--|--|
| AM | AR | 42 | Sadowski, J. et al., "Assessing Similarity and Diversity of Combinatorial Libraries by Spatial Autocorrelation Functions and Neural Networks," <i>Angewandte Chemie</i> , Vol. 34, No. 23/24, January 5, 1996, pp. 2674-2677. | | | | |
| AM | AS | 42 | Thompson, L.A. and Ellman, J.A., "Synthesis and Applications of Small Molecule Libraries," <i>Chemical Reviews</i> , Vol. 96, No. 1, January/February 1996, pp. 555-600. | | | | |
| AM | AT | 42 | Barnard, John M. and Downs, Geoff M., "Computer representation and manipulation of combinatorial libraries," <i>Perspectives in Drug Discovery and Design</i> , 1997, pp. 13-30. | | | | |

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| EXAMINER | <i>Andin Mansley</i> | DATE CONSIDERED | 9/23/02 |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | |

FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1503.0730000

APPLICATION NO.
09/506,741

APPLICANT
Lobanov et al.

FILING DATE
February 18, 2000

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1631

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
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| | AA43 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL43 | | | | | | Yes No |
| | AM43 | | | | | | Yes No |
| | AN43 | | | | | | Yes No |
| | AO43 | | | | | | Yes No |
| | AP43 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 43 | Brint, Andrew T. and Willett, Peter, "Upperbound procedures for the identification of similar three-dimensional chemical structures," <i>Journal of Computer-Aided Molecular Design</i> , Vol. 2, No. 4, 1988, pp. 311-320. |
| AM | AS | 43 | Brown, Robert D. and Martin, Yvonne C., "Designing Combinatorial Library Mixtures Using a Genetic Algorithm," <i>Journal of Medicinal Chemistry</i> , Vol. 40, No. 15, 1997, pp. 2304-2313. |
| AM | AT | 43 | Gasteiger, J. et al., "Analysis of the Reactivity of Single Bonds in Aliphatic Molecules by Statistical and Pattern Recognition Methods," <i>Journal of Chemical Information Computer Science</i> , Vol. 33, No. 3, 1993, pp. 385-394. |

EXAMINER

Andin Marshall

DATE CONSIDERED

9/23/02

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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA44 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL44 | | | | | | Yes No |
| | AM44 | | | | | | Yes No |
| | AN44 | | | | | | Yes No |
| | AO44 | | | | | | Yes No |
| | AP44 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 44 | Gillet, Valerie J. et al., "The Effectiveness of Reactant Pools for Generating Structurally-Diverse Combinatorial Libraries," <i>Journal of Chemical Information Computer Sciences</i> , Vol. 37, No. 4, 1997, pp. 731-740. |
| AM | AS | 44 | Gillet, Valerie J. et al., "Selecting Combinatorial Libraries to Optimize Diversity and Physical Properties," <i>Journal of Chemical Information Computer Sciences</i> , Vol. 39, No. 1, 1999, pp. 169-177. |
| AM | AT | 44 | Guez, Allon and Nevo, Igal, "Neural networks and fuzzy logic in clinical laboratory computing with application to integrated monitoring," <i>Clinica Chimica Acta</i> , 248, 1996, pp. 73-90. |

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| EXAMINER | <i>Adam Mansley</i> | DATE CONSIDERED | 9/23/02 |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | |

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA45 | | | | | | |
| | AB45 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL45 | | | | | | Yes No |
| | AM45 | | | | | | Yes No |
| | AN45 | | | | | | Yes No |
| | AO45 | | | | | | Yes No |
| | AP45 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 45 | Kearsley, Simon K. et al., "Chemical Similarity Using Physiochemical Property Descriptors," <i>Journal of Chemical Information Computer Science</i> , 36, 1996, pp. 118-127. |
| AM | AS | 45 | Leland, Burton A. et al., "Managing the Combinatorial Explosion," <i>Journal of Chemical Information Computer Science</i> , 37, 1997, pp. 62-70. |
| AM | AT | 45 | Lewis, Richard A. et al., "Similarity Measures for Rational Set Selection and Analysis of Combinatorial Libraries: The Diverse Property-Derived (DPD) Approach," <i>Journal of Chemical Information Computer Science</i> , 37, 1997, pp. 599-614. |

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| EXAMINER <i>Andi Masley</i> | DATE CONSIDERED <i>9/23/02</i> |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA46 | | | | | | |
| | AB46 | | | | | | |
| | AC46 | | | | | | |
| | AD46 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL46 | | | | | | Yes No |
| | AM46 | | | | | | Yes No |
| | AN46 | | | | | | Yes No |
| | AO46 | | | | | | Yes No |
| | AP46 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 46 | Martin, Eric J. and Critchlow, Roger E., "Beyond Mere Diversity: Tailoring Combinatorial Libraries for Drug Discovery," <i>Journal of Combinatorial Chemistry</i> , Vol. 1, No. 1, 1999, pp. 32-45. |
| AM | AS | 46 | Sen, K. (ed.), <i>Molecular Similarity I</i> , Springer-Verlag, 1995, pp. 1-30. |
| AM | AT | 46 | Sheridan, Robert P. et al., "Chemical Similarity Using Geometric Atom Pair Descriptors," <i>Journal of Chemical Information Computer Science</i> , 36, 1996, pp. 128-136. |

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| EXAMINER <i>Arthur Masley</i> | DATE CONSIDERED <i>9/23/02</i> |
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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA47 | | | | | | |
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| | AD47 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL47 | | | | | | Yes No |
| | AM47 | | | | | | Yes No |
| | AN47 | | | | | | Yes No |
| | AO47 | | | | | | Yes No |
| | AP47 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|--|--|--|--|--|
| AM | AR | 47 | Willett, Peter et al., "Chemical Similarity Searching," <i>Journal of Chemical Information Computer Science</i> , 38, 1998, pp. 983-996. | | | | |
| AM | AS | 47 | Agrafiotis, Dimitris K. and Lobanov, Victor S., "Ultrafast Algorithm for Designing Focused Combinational Arrays," <i>J. Chem. Inf. Comput. Sci.</i> , June 16, 2000, Vol. 40, pp. 1030-1038. | | | | |
| AM | AT | 47 | Ajay, W. Patrick Walters and Murcko, Mark A., "Can We Learn To Distinguish between "Drug-Like" and "Nondrug-like" Molecules?" <i>J. Med. Chem.</i> , July 23, 1998, Vol. 41, pp. 3314-3324. | | | | |

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| EXAMINER <i>Adam Mascher</i> | DATE CONSIDERED <i>9/23/02</i> |
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FORM PTO-1449
INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
 1503.0730000

APPLICATION NO.
 09/506,741

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 1631

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA48 | | | | | | |
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FOREIGN PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB- CLASS | TRANSLATION |
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| | AL48 | | | | | | Yes No |
| | AM48 | | | | | | Yes No |
| | AN48 | | | | | | Yes No |
| | AO48 | | | | | | Yes No |
| | AP48 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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|----|----|----|---|
| AM | AR | 48 | Brown, Robert D. and Martin, Yvonne C., "Designing Combinatorial Library Mixtures Using a Genetic Algorithm," <i>J. Med. Chem.</i> , 1997, Vol. 40, pp. 2304-2313. |
| AM | AS | 48 | Brown, Robert D. and Martin, Yvonne C., "The Information Content of 2D and 3D Structural Descriptors Relevant to Ligand-Receptor Binding," <i>J. Chem. Info. Comput. Sci.</i> , 1997, Vol. 37, pp. 1-9. |
| AM | AT | 48 | Brown, Robert D. and Martin, Yvonne C., "Use of Structure-Activity Data To Compare Structure-Based Clustering Methods and Descriptors for Use in Compound Selection," <i>J. Chem. Inf. Sci.</i> , 1996, Vol. 36, pp. 572-584. |

EXAMINER

Andin Marsden

DATE CONSIDERED 9/23/02

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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA49 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL49 | | | | | | Yes No |
| | AM49 | | | | | | Yes No |
| | AN49 | | | | | | Yes No |
| | AO49 | | | | | | Yes No |
| | AP49 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|--|
| AM | AR | 49 | Cummins, David J. et al., "Molecular Diversity in Chemical Databases: Comparison of Medicinal Chemistry Knowledge Bases and Databases of Commercially Available Compounds," American Chemical Society, 1996, 14 pages. |
| AM | AS | 49 | Daylight Theory: Fingerprints (visited September 26, 2000) < http://www.daylight.com/dayhtml/doc/theory/theory.finger.html >, 8 pages. |
| AM | AT | 49 | Daylight Theory: SMARTS (visited September 26, 2000) < http://www.daylight.com/dayhtml/doc/theory/theory.smarts.html >, 10 pages. |

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| EXAMINER <i>Andin Marsden</i> | DATE CONSIDERED 9/23/02 |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA50 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL50 | | | | | | Yes No |
| | AM50 | | | | | | Yes No |
| | AN50 | | | | | | Yes No |
| | AO50 | | | | | | Yes No |
| | AP50 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|--|--|--|--|--|
| AM | AR | 50 | Downs, Geoff M. and Barnard, John M., "Techniques for Generating Descriptive Fingerprints in Combinatorial Libraries," <i>J. Chem. Inf. Comput. Sci.</i> , 1997, Vol. 37, pp. 59-61. | | | | |
| AM | AS | 50 | Gillet, Valerie J., "Background Theory of Molecular Diversity," <i>Molecular Diversity in Drug Design</i> , 1999, pp. 43-65. | | | | |
| AM | AT | 50 | Good, Andrew C. and Lewis, Richard A., "New Methodology for Profiling Combinatorial Libraries and Screening Sets: Cleaning Up the Design Process with HARPick," <i>J. Med. Chem.</i> , 1997, Vol. 40, pp. 3926-3936. | | | | |

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| EXAMINER | <i>Andi Marsden</i> | DATE CONSIDERED | 9/23/02 |
| EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant. | | | |

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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
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| | AA51 | | | | | | |
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FOREIGN PATENT DOCUMENTS

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| | AL51 | | | | | | Yes No |
| | AM51 | | | | | | Yes No |
| | AN51 | | | | | | Yes No |
| | AO51 | | | | | | Yes No |
| | AP51 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 51 | Gorse, Dominique and Lahana, Roger, "Functional diversity of compound libraries," <i>Current opinion in chemical biology</i> , 2000, Vol. 4, pp. 287-294. |
| AM | AS | 51 | Jamois, Eric A. et al., "Evaluation of Reagent-Based and Product-Based Strategies in the Design of Combinatorial Library Subsets," <i>J. Chem. Inf. Comput. Sci.</i> , December 9, 1999, Vol. 40, pp. 63-70. |
| AM | AT | 51 | Leach, Andrew R. et al., "Implementation of a System for Reagent Selection and Library Enumeration, Profiling, and Design," <i>J. Chem. Inf. Comput. Sci.</i> , October 29, 1999, Vol. 39, pp. 1161-1172. |

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| EXAMINER <i>Andi Masley</i> | DATE CONSIDERED 9/23/02 |
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EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA52 | | | | | | |
| | AB52 | | | | | | |
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FOREIGN PATENT DOCUMENTS

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| | AL52 | | | | | | Yes No |
| | AM52 | | | | | | Yes No |
| | AN52 | | | | | | Yes No |
| | AO52 | | | | | | Yes No |
| | AP52 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 52 | Leach, Andrew R. and Hann, Michael M., "The <i>in silico</i> world of virtual libraries," <i>Drug discovery today</i> , August 2000, Vol. 5, pp. 326-336. |
| AM | AS | 52 | Leland, Burton A. et al., "Managing the Combinatorial Explosion," <i>J. Chem. Inf. Comput. Sci.</i> , 1997, Vol. 37, pp. 62-70. |
| AM | AT | 52 | Lobanov, Victor S. and Agrafiotis, Dimitris K., "Stochastic Similarity Selections from Large Combinatorial Libraries," <i>J. Chem. Inf. Comput. Sci.</i> , January 21, 2000, Vol. 40, pp. 460-470. |

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|----------|---------------------|-----------------|---------|
| EXAMINER | <i>Andi Mansley</i> | DATE CONSIDERED | 9/23/02 |
|----------|---------------------|-----------------|---------|

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| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|------|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA53 | | | | | | |
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| FOREIGN PATENT DOCUMENTS | | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL53 | | | | | | Yes No |
| | AM53 | | | | | | Yes No |
| | AN53 | | | | | | Yes No |
| | AO53 | | | | | | Yes No |
| | AP53 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 53 | Matter, Hans and Pötter, Thorsten, "Comparing 3D Pharmacophore Triplets and 2D Fingerprints for Selecting Diverse Compound Subsets," J. Chem. Inf. Comput. Sci., October 29, 1999, Vol. 39, pp. 1211-1225. |
| AM | AS | 53 | Matter, Hans, "Selecting Optimally Diverse Compounds from Structure Databases: A Validation Study of Two-Dimensional and Three-Dimensional Molecular Descriptors," J. Med. Chem., 1997, Vol. 40, pp. 1219-1229. |
| AM | AT | 53 | Sadowski, Jens and Kubinyi, Hugo, "A Scoring Scheme for Discriminating between Drugs and Nondrugs," J. Med. Chem., August 1, 1998, Vol. 41, pp. 3325-3329. |

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|------------------------------|--------------------------------|
| EXAMINER <i>Andin Mansel</i> | DATE CONSIDERED <i>9/23/02</i> |
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| FORM PTO-1449 <u>INFORMATION DISCLOSURE STATEMENT</u> | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|------|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA54 | | | | | | |
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| | AL54 | | | | | | Yes No |
| | AM54 | | | | | | Yes No |
| | AN54 | | | | | | Yes No |
| | AO54 | | | | | | Yes No |
| | AP54 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | | | | | |
|--|----|----|---|--|--|--|--|
| AM | AR | 54 | Schnur, Dora, "Design and Diversity Analysis of Large Combinatorial Libraries Using Cell-Based Methods," J. Chem. Inf. Comput. Sci., January 6, 1999, Vol. 39, pp. 36-45. | | | | |
| AM | AS | 54 | Schuffenhauer, Ansgar et al., "Similarity Searching in Files of Three-Dimensional Chemical Structures: Analysis of the BIOSTER Database Using Two-Dimensional Fingerprints and Molecular Field Descriptors," J. Chem. Inf. Comput. Sci., December 22, 1999, Vol. 40, pp. 295-307. | | | | |
| AM | AT | 54 | Turner, David B. et al., "Rapid Quantification of Molecular Diversity for Selective Database Acquisition," J. Chem. Inf. Sci., 1997, Vol. 37, pp. 18-22. | | | | |

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| EXAMINER <i>Andin Mousley</i> | DATE CONSIDERED 9/23/02 |
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| FORM PTO-1449 INFORMATION DISCLOSURE STATEMENT | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | APPLICANT Lobanov et al. | |
| | FILING DATE February 18, 2000 | GROUP 1631 |

| U.S. PATENT DOCUMENTS | | | | | | | |
|-----------------------|------|-----------------|------|------|-------|-----------|-------------|
| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
| | AA55 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
| | AL55 | | | | | | Yes No |
| | AM55 | | | | | | Yes No |
| | AN55 | | | | | | Yes No |
| | AO55 | | | | | | Yes No |
| | AP55 | | | | | | Yes No |

| OTHER (Including Author, Title, Date, Pertinent Pages, etc.) | | | |
|--|----|----|---|
| AM | AR | 55 | Wang, Jing and Ramnarayan, Kal, "Toward Designing Drug-Like Libraries: A Novel Computational Approach for Prediction of Drug Feasibility of Compounds," J. Comb. Chem., October 19, 1999, Vol. 1, pp. 524-533. |
| AM | AS | 55 | Gasteiger et al, "Assessment of the Diversity of Combinatorial Libraries by an Encoding of Molecular Surface Properties," Abstracts of Papers, American Chemical Society, 211th ACS National Meeting, Item 070, March 1996. |
| AM | AT | 55 | Hassan, Moises et al., "Optimization and visualization of molecular diversity of combinatorial libraries," Molecular Diversity, 1996, Vol. 2, pp. 64-74. |

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| EXAMINER <i>Adam Mansley</i> | DATE CONSIDERED 9/23/02 |
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INFORMATION DISCLOSURE STATEMENTATTY. DOCKET NO.
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09/506,741APPLICANT
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1631**U.S. PATENT DOCUMENTS**

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB- CLASS | FILING DATE |
|---------------------|------|--------------------|------|------|-------|---------------|-------------|
| | AA56 | | | | | | |
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FOREIGN PATENT DOCUMENTS

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| | AL56 | | | | | | Yes No |
| | AM56 | | | | | | Yes No |
| | AN56 | | | | | | Yes No |
| | AO56 | | | | | | Yes No |
| | AP56 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|---|
| AM | AR | 56 | de Ridder, D. and Duin, R.P.W., "Sammon's mapping using neural networks: A comparison," <i>Pattern Recognition Letters</i> , Vol. 18, No. 11-13, 1997, pp. 1307-1316. |
| AM | AS | 56 | Kim, H. et al., "Self-Organized Distributed Networks for Learning Highly Nonlinear Mapping," <i>Intelligent Engineering Systems Through Artificial Neural Networks</i> , Vol. 4, November 13-16, 1994, pp. 109-114. |
| AM | AT | 56 | Pal, N.R. and Eluri, V.K., "Two Efficient Connectionist Schemes for Structure Preserving Dimensionality Reduction," <i>IEEE Transactions on Neural Networks</i> , Vol. 9, No. 6, November 1998, pp. 1142-1154. |

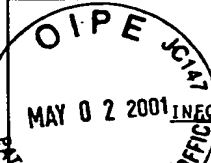
EXAMINER

Arden Masdeley

DATE CONSIDERED

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|  | FORM PTO-1449 | ATTY. DOCKET NO. 1503.0730000 | APPLICATION NO. 09/506,741 |
| | INFORMATION DISCLOSURE STATEMENT | APPLICANT Lobanov <i>et al.</i> | |
| | | FILING DATE February 18, 2000 | GROUP 1631 |

U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
|---------------------|------|-----------------|---------|----------------------|-------|-----------|-------------|
| AM | AA57 | 6,185,506 B1 | 02/2001 | Cramer <i>et al.</i> | 702 | 19 | |
| | AB57 | | | | | | |
| | AC57 | | | | | | |
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| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | COUNTRY | CLASS | SUB-CLASS | TRANSLATION |
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| | AM57 | | | | | | Yes No |
| | AN57 | | | | | | Yes No |
| | AO57 | | | | | | Yes No |
| | AP57 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

| | | | |
|----|----|----|--|
| AM | AR | 57 | Clark, R., <i>et al.</i> , "Visualizing Substructural Fingerprints," <i>Journal of Molecular Graphics and Modelling</i> , Vol. 18, Elsevier Science, Inc., New York, New York, August-October, 2000, pp. 404-411. |
| AM | AS | 57 | Domine, D. <i>et al.</i> , "Non-Linear Mapping for Structure-Activity and Structure-Property Modelling," <i>Journal of Chemometrics</i> , Vol. 7, No. 4, John Wiley & Sons, Ltd., July-August 1993, pp. 227-242. |
| AM | AT | 57 | Lobanov, V.S. and Agrafiotis, D.K., "Stochastic Similarity Selections from Large Combinatorial Libraries," <i>J. Chem. Inf. Comput. Sci.</i> , Vol. 40, No. 2, American Chemical Society, 2000 (published on Web January 21, 2000), pp. 460-470. |

EXAMINER

Andin Marschey

DATE CONSIDERED

9/23/02

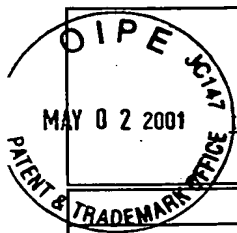
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INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.
1503.0730000

APPLICATION NO.
09/506,741

APPLICANT
Lobanov *et al.*

FILING DATE
February 18, 2000

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U.S. PATENT DOCUMENTS

| EXAMINER INITIAL | | DOCUMENT NUMBER | DATE | NAME | CLASS | SUB-CLASS | FILING DATE |
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| | AA58 | | | | | | |
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| | AL58 | | | | | | Yes No |
| | AM58 | | | | | | Yes No |
| | AN58 | | | | | | Yes No |
| | AO58 | | | | | | Yes No |
| | AP58 | | | | | | Yes No |

OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

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| | AR | 58 | Copy of International Search Report issued February 9, 2001 for PCT/US 00/07306, 5 pages. |
| | AS | 58 | |
| | AT | 58 | |

EXAMINER

Andin Marschel

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